

REMARKS

Applicants acknowledge receipt of an Office Action dated March 8, 2002.

In this response, Applicants have cancelled claim 1 without prejudice or disclaimer, amended claim 10 for clarity, amended claim 2 to depend from claim 10 and amended claims 3 and 7 such that they each now contain all of the recitations of claim 10. Applicants have also added claim 13. Support for this claim may be found in the specification at, for example, the paragraph bridging pages 13 and 14. Following entry of these amendments, claims 2-13 are pending in the application. Claims 3-9 have been withdrawn from consideration as a result of a restriction requirement dated March 12, 2001; however, rejoinder is requested below.

In addition, in this response, Applicants have amended the specification to correct two obvious typographical errors. Specifically, Applicants have amended the specification at page 22, line 3 and at page 23, line 20 to recite "Test 4" instead of "Test 8". These amendments to the specification are straightforward, and one skilled in the art would readily recognize both the error and the appropriate correction for the error because (1) there is no "Test 8" in the specification and (2) it is clear from the context of the paragraph in which the phrase "Test 8" appeared that the test referred to is "Test 4". No new matter has been added.

Applicants also note that an executed Declaration under 37 C.F.R. §1.132 is being submitted herewith.

Reconsideration of the present application is respectfully requested in view of the foregoing amendments and the remarks which follow.

Restriction Requirement

Upon a finding of allowable claims, rejoinder and examination of claims 3 to 9 pursuant to MPEP 821.04 are respectfully requested.

Rejections Under 35 U.S.C. §103(a)

In the Office Action, the PTO has withdrawn the rejection under 35 U.S.C. §102 for anticipation and has solely rejected claims 1, 2 and 10-12 under 35 U.S.C. §103(a) as

being unpatentable for alleged "obviousness" over U.S. Patent 4,857,594 to Lakshmanan (hereafter "Lakshmanan"). Applicants respectfully traverse the rejection of these claims.

As an initial matter, Applicants note that claim 1 has been cancelled without prejudice or disclaimer and that the rejections with regard to this claim are now moot. OK

As discussed in MPEP §2141.02, the PTO must consider both the invention and the prior art references *as a whole*. Here, a review of each of the disclosures of Lakshmanan and the present invention *as a whole* reveals that Lakshmanan relates to a hot melt adhesive having certain necessary properties, while the present invention relates to a pressure sensitive sealant having markedly different properties.

In contrast with the *removable* pressure sensitive sealant (designed for attaching vehicle light assemblies to a vehicle body) disclosed in the present application, the adhesive of Lakshmanan is used for *permanent* bonding. In other words, the presently claimed pressure sensitive sealant, which has a suitable removability (see page 1, lines 11-14, page 4, lines 25-30, the paragraph bridging pages 13 and 14 of the specification; also the first full paragraph on page 14), is materially different from hot melt adhesives (including that of Lakshmanan), which are used for permanent bonding of plastic films to themselves or to other substrates, e.g., in the making of packaging. Lakshmanan states, for example, that "*it is absolutely necessary* that the adhesive used exhibit excellent adhesivity to such surfaces to hold the assemblies together *through their lifetime of use*." (see column 2, lines 1-4). (Emphasis added). Thus, the hot melt adhesives of Lakshmanan have materially different properties from those of the removable pressure sensitive sealants of the present invention.

The removability of the compositions of the present invention is described in the specification which includes the following passages among others:

[The present] pressure sensitive sealant [peels off well] under stress within the range of breaking elongation, thereby making an interfacial breaking so that the sealing composition can be readily peeled off from the surfaces of the rear combination lamp housing and the vehicle body panel without leaving the

remains of the pressure sensitive sealant composition on the surfaces.” (see the paragraph bridging pages 13 and 14)

[The present invention] does not allow the remains of the pressure sensitive sealant composition to be left in an adhered state on the surfaces of the rear combination lamp housing and the vehicle body panel.” (para. bridging pp. 13 and 14).

Thus, Lakshmanan is not and cannot be a satisfactory “teaching reference” upon which to base an allegation of “obviousness” under Section 103. In the Office Action, the PTO recognizes “that the amounts taught by Lakshmanan are not exactly the same as those that are instantly claimed”, and the PTO states “that it is within the skill of one of ordinary skill in the art to use such variations in the amounts from those that are disclosed in the prior art in order to optimize the performance of end products and arrive at the claimed ranges..” This is not correct, since one following Lakshmanan would clearly arrive at a much different composition having the much different properties than the presently claimed compositions.

Furthermore, the PTO errs in stating that Lakshmanan discloses the same ingredients “in proportion that overlap those that are claimed.” The PTO has pointed to Table III, Run #6 of Lakshmanan for the alleged teaching that “Wax (as a plasticizer) is used at 47.5%,” thereby apparently implying that (1) wax is a plasticizer and that (2) the amount used falls within the claimed range for component (c) according to the claims. As to implication (2), Run #6 clearly fails to provide the alleged teaching, because Run #6 completely lacks a tackifier, fails to disclose a polymer according to component (a) in the claimed amount (Kraton GX-1657 is present only at about 5%), and Lakshmanan itself says with respect to this Comparative Example that “Run No. 6 resulted in a composition exhibiting no adhesivity.” (col. 10, lines 17-18, emphasis added). Moreover, this alleged “teaching” is contrary to the disclosure of Lakshmanan at column 5 that amounts of these optional ingredients in actual adhesive compositions can be “in an amount up to 40 weight percent.” Consequently, it is obviously incorrect to state that Lakshmanan discloses the same ingredients in overlapping proportions, i.e., the ingredients are not the same, the amounts are not the same, and Run #6 is not a composition according to the Lakshmanan

invention. This disclosure in Lakshmanan is hardly the type of positive concrete teaching that is required to suggest the presently claimed invention.

Applicants note that according to the embodiment of the invention of claim 10, the amount of component C (hydrocarbonic plasticizer) is clearly defined as being 42-62 wt% in order to obtain a suitable resilience (see page 1, line 32 to page 2, line 4; also page 2, lines 13-15 of the specification) and a suitable removability (see page 6, lines 20-21 of the specification) as a pressure sensitive sealant.

If the amount of component C is less than 42 wt%, resilience becomes too high, resulting in difficulty in a mechanical fastening of a rear combination lamp, on which the pressure sensitive sealant has been applied, to an automotive vehicle body panel (see page 16, lines 23-27 of the specification). If the amount of component C is greater than 62 wt%, resilience becomes too low, and this also results difficulty in the mechanical fastening referred to above. Further, if the amount of component C is greater than 62 wt%, the cohesive force becomes too low and results in cohesive breaking (see page 13, line 27 to page 14, line 13 of the specification). As a result, it is difficult to easily and completely remove the pressure sensitive sealant if the component C (hydrocarbonic plasticizer) is greater than 62 wt%.

Thus, it is possible to obtain a suitable removability if the component C (hydrocarbonic plasticizer) is within the claimed range of 42-62 wt%. The results shown in Table 5 of the specification provide further support for this assertion. In Table 5, Vehicle Nos. 1-5 according to the present invention showed a suitable removability, as compared with Vehicle No. 6 not according to the present invention (see page 22, lines 1-11; also see page 23, line 4 to page 24, line 2; and page 24, lines 8-15 of the specification). In each of Vehicles 1-5 in Table 5, the pressure sensitive sealant according to Example 2 of Table 1 was used (see page 20, lines 26-29; also page 19, lines 12-17; page 18, lines 19-23; also page 18, lines 19-23; and page 17, lines 11-19 of the specification). Example 2 contained 45 wt % of the component C (see Remarks, page 1, line 5 of the Amendment and Reply filed October 29, 2001), which is clearly within the claimed range of 42-62 wt%.

As to the implication (1) that wax in Run #6 is acting as a plasticizer, this is also incorrect. While there may be some overlap in the list of optional ingredients in column 5 of Lakshmanan and component (c) of the present invention, it is very clear that Shellwax 700 (a paraffin wax) is not included in such an overlap. The present specification does not list paraffin wax as an example of component (c), but rather in the list of optional additives at page 7, lines 24 to end of page. Paraffin wax is a solid, whereas liquid paraffin (which is listed as a possible ingredient (c)) is obviously a different composition, is naturally a liquid and is not disclosed in column 5 of Lakshmanan. Thus, Lakshmanan also lacks an adequate teaching as to the third component of Applicants' claimed composition.

For these reasons, it is submitted that Lakshmanan fails as a sufficient "teaching" under Section 103 to render obvious Applicants' claimed invention as claimed in claim 10 submitted with the previous response. Additional reasons for allowance of claim 10, particularly as amended, are presented below; however, Applicants respectfully submit that the foregoing deficiencies pointed out with respect to Lakshmanan as a basic teaching reference are completely sufficient to demonstrate that claim 10, even without amendment, is patentable over Lakshmanan. Withdrawal of the stated rejection is therefore respectfully requested.

Applicants have pointed out above considerable differences between the compositions of Lakshmanan and those presently claimed. One consequence of these differences is Lakshmanan's incorporation of an amorphous polypropylene in order to enhance compatibility of the hot melt adhesive with an olefinic substance (which is at least one of the two members to be bonded by the hot melt adhesive). Lakshmanan states that "[t]he data in Table VI exemplify the *critical need* of combining the amorphous polypropylene and tackifier with a selectively hydrogenated alkenyl arene/conjugated diene block copolymer..." (see column 12, lines 42-45). (Emphasis added). In contrast, the pressure sensitive sealant of the present invention does not contain amorphous polypropylene, which is clearly a component that would affect the basic and novel characteristics of the compositions according to the present invention and is therefore

excluded by the transitional phrase "consisting essentially of" that has been added to all of the claims.

Declaration Under 37 C.F.R. §1.132

In connection with this difference, Applicants submit herewith a Declaration under 37 C.F.R. §1.132. As shown in the Declaration, the pressure sensitive sealant according to Comparative Example A contained an amorphous polypropylene and exhibited an excessive hardness which is the result of in an imbalance between stickiness and cohesiveness. In other words, the composition becomes hard by the addition of amorphous polypropylene, and the addition also lowers the cohesiveness. As a result, this composition essentially forms a permanent adhesive bond and is not removable in the same manner as the present invention. In contrast, the pressure sensitive sealant of Example 4 of the Declaration is not excessively hard, and has a suitable removability as can be seen from the "interfacial breaking" in the 180° peeling test.

Considering each of the disclosures of Lakshmanan and the present invention as a whole, it is clear that the hot melt adhesive of Lakshmanan is used for permanent bonding and that the pressure sensitive sealant of the present invention is removable. Applicants therefore submit that, in view of the divergent objects of these two disclosures, one optimizing the ranges of Lakshmanan would not arrive at the claimed ranges and that there is no proper motivation for modifying Lakshmanan in the manner proposed by the PTO.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections under §103.

Newly Added Claim 13

In this response, Applicants have added new dependent claim 13. Newly added claim 13 includes the phrase, "wherein the pressure sensitive sealant composition can be peeled off from a surface without leaving remains of the pressure sensitive sealant composition on the surface." Support for this amendment may be found in the specification at, for example, the paragraph bridging pages 13 and 14. In view of the arguments above and the declaration submitted herewith, Applicants submit that claim 13 is also clearly allowable over Lackshmanan.

CONCLUSION

In view of the foregoing remarks by themselves, and further in view of the amendments and Declaration (which Applicants repeat are not necessary for allowance), Applicants respectfully submit that all of the pending claims are now in condition for allowance. An early notice to this effect is earnestly solicited. If there are any questions regarding the application, the Examiner is invited to contact the undersigned at the number below.

Respectfully submitted,

Date July 8, 2002

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and applicant(s) hereby petition for any needed extension of time.

Versions with Markings to Show Changes Made

In the Specification:

Please amend the Specification as follows:

Paragraph beginning on page 22 at line 1 has been amended as follows:

For the comparison purpose, a small-size sedan automotive vehicle (having Vehicle No. 6) were prepared and subjected to Test [8] 4 in the same manner as that for vehicles of Vehicle Nos. 1 to 5 to obtain test results (indicated as “Comparative Example”) shown in the Table 5. The automotive vehicle of Vehicle No. 6 was the same as that of Vehicle Nos. 1 to 5 with the exception that a butyl rubber-based adhesive was used in place of the pressure sensitive sealant composition. In other words, in the automotive vehicle of Vehicle No. 6, each of the left-side and right-side rear combination lamps was sealingly assembled to the vehicle body by using the butyl rubber-based adhesive.

Paragraph beginning on page 23 at line 4 has been amended as follows:

As will be understood from the above test results, concerning the five vehicles (Vehicle Nos. 1 to 5), no particular tool was required to disassemble the rear combination lamp unit from the vehicle body while completing a disassembling operation for the rear combination lamp unit only within one minute, in which there was no remains of the pressure sensitive sealant composition left on the surface of the painted surface of the vehicle body panel and the surface of the rear combination lamp unit housing. In contrast, concerning the vehicle (Vehicle No. 6) using the butyl rubber-based adhesive in place of the pressure sensitive sealant composition of the present invention, an industrial dryer and a plastic bar were required to disassemble the rear combination lamp unit from the vehicle body while requiring 3 to 5 minutes for disassembling operation for the rear combination lamp unit and 25 to 30 minutes for a cleaning operation for the surface of the rear combination lamp unit housing and the painted surface of the vehicle body panel. Thus, Test [8] 4 has revealed that the pressure sensitive sealant composition of the present invention used in the clearance between the rear combination lamp unit housing and the

vehicle body panel not only can provide an excellent water-tight seal but also can largely reduce the operational time required for disassembly of the rear combination lamp unit from the vehicle body.

In the Claims:

2. (Amended) A pressure sensitive sealant composition as claimed in claim [1] 10, wherein said pressure sensitive sealant composition has a peel strength ranging from 10 to 50 N/25 mm at a temperature of about 23°C.

3. (Amended). A method for sealing a member, comprising:

mixing together (a) 100 parts by weight of a component A that is at least one copolymer selected from the group consisting of hydrogenated styrene-butadiene copolymers, hydrogenated styrene-isoprene copolymers, and modified copolymers thereof; (b) 20-60 parts by weight of a component B that is at least one tackifier selected from the group consisting of petroleum resins, terpene resins, rosin resins, coumarone-indene resins, hydrogenated resins thereof, and modified resins thereof; and (c) 150-400 parts by weight of a component C that is a hydrocarbonic plasticizer, thereby to prepare a pressure sensitive sealant composition [containing] consisting essentially of 10-40 wt% of said component A, said component B, and 42-62 wt% of said component C;

heating said pressure sensitive sealant composition; and

applying said heated pressure sensitive sealant composition to the member.

7. (Amended). A method for sealing a member, comprising:

mixing together (A) 100 parts by weight of a component A that is at least one copolymer selected from the group consisting of hydrogenated styrene-butadiene copolymers, hydrogenated styrene-isoprene copolymers, and modified copolymers thereof;

(B) 20-60 parts by weight of a component B that is at least one tackifier selected from the group consisting of petroleum resins, terpene resins, rosin resins, coumarone-indene resins, hydrogenated resins thereof, and modified resins thereof; and (C) 150-400 parts by weight of a component C that is a hydrocarbonic plasticizer, thereby to prepare a pressure sensitive sealant composition [containing] consisting essentially of 10-40 wt% of said component A, said component B, and 42-62 wt% of said component C;

forming said pressure sensitive sealant composition into a predetermined shape; and

applying said pressure sensitive sealant composition of the predetermined shape to the member.

10. (Amended). A pressure sensitive sealant composition [comprising] consisting essentially of:

(a) 10-40 wt% of a component A that is at least one copolymer selected from the group consisting of hydrogenated styrene-butadiene copolymers, hydrogenated styrene-isoprene copolymers, and modified copolymers thereof;

(b) a component B that is at least one tackifier selected from the group consisting of petroleum resins, terpene resins, rosin resins, coumarone-indene resins, hydrogenated resins thereof, and modified resins thereof; and

(c) 42-62 wt% of a component C that is a hydrocarbonic plasticizer, wherein said pressure sensitive sealant composition is prepared by mixing together 100 parts by weight of said component A, 20-60 parts by weight of said component B, and 150-400 parts by weight of said component C.